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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,239	02/13/2001	Keishi Sugimoto	56937-024	8013

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EXAMINER	
LIOU, JONATHAN	

ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/781,239	SUGIMOTO ET AL.	
	Examiner	Art Unit	
	Jonathan Liou	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) *1,3,8,10-12 and 18* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2,4-7,9,13 and 15-17* is/are rejected.

7)☒ Claim(s) *14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02/13/2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

On the response to restriction requirement, Applicant elected Group I (claims 2, 6-7, 9, 13-15, 17 and 20-21), and claims 4-5, 16, 19 are amended for consideration along with the claims in the Group I. Thus, claims 2, 4-7, 9, 13-17, 19-21 would be considered for examination.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 2, 4-6, 16, 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Robinett et al. (US Pat No. 6, 351, 474.)

Regarding claim 2, Robinett et al. disclosed a digital broadcast receiving apparatus (Fig. 2) configured such that overwriting of packets corresponding to necessary PIDs in a second TS is performed to unnecessary-packet areas corresponding to unnecessary PIDs in a first TS (**the first TS as claimed could** be **interpreted as TS3 in the reference and the second TS as claimed could be interpreted as TS1 or TS2 in the reference. Robinett et al. teach the packets corresponding to PIDs, which could be necessary because it used under the purpose of extraction, decoding, etc... TS 3 is for TS1 and TS2 to remultiplexed;**

therefore, it could be empty stream for types of transport packets to be inserted. Therefore, it holds unnecessary or empty packet corresponding to dummy PIDs to be overwrite with the new PID from TS1 or TS2. See col 20, lines 34-51 and col 22-23, lines 34-33.)

Regarding claims 4-6, Robinett et al. teach when packets to be multiplexed the overwriting, the packets on at least one of the TS sides are rewritten to make the packets to be different from one another, and PIDs of packets on the TS side where packets are added through the overwriting are rewritten. (**Robinett et al. teach either TS1 or TS2 need to be rewritten to make packet distinct from one another. See col 20, lines 34-51.**), and also teach unnecessary-packet areas corresponding to the unnecessary PIDs, NULL-packet areas are given priority (**Robinett et al. teach null transport packets are considered as must be accepted because of optimization of the bandwidth concern. Thus, the null packet would be considered as higher priority. See col 5, lines 51-54, col 43, lines 11-27**)

Regarding claims 16 and 19, Robinett et al. teach the plurality of TSs being selectable from (a) a TS including viewing-desired broadcast program data, (b) a TS including broadcast-program-table related data, (c) a TS including downloadable data, (d) a TS including image-recording-desired broadcast program data, and (e) TSs including other broadcast program data; and packets in the plurality of selected TSs are multiplexed (**See col 33-34, lines 15-6 and col 47, lines 47-54.**) and apparatuses arbitrarily selected from (a) an image-playback apparatus, (b) an audio-recording apparatus, and (c) a digital-image recording apparatus (**See col 13, lines 8-24.**)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 7, 9, 13, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robinett et al. (US Pat No. 6,351,474.)

Regarding claim 7, Robinett et al. teach a digital broadcast receiving apparatus for detecting unnecessary packet areas (null packet) corresponding to unnecessary PIDS in first TS that is input, extracting packets corresponding to necessary PIDs in a second TS; and overwriting packets extracted to null packet area in the TS (Robinett et al. teach to find the presence of null packet exist and replaced those with other to be remultiplexed transport packet data, which is necessary packet. See col 40, lines 1-57.) Robinett et al. does not specifically unnecessary-packet detecting means, necessary-packet extracting means and packet-overwriting means recited in the claim; however, Robinett et al. teach the method and system to perform the limitations and it has to have means to perform those limitation. In addition, Robinett et al. teach the processor and memory to perform the extracting and allocating the packets. (See col 40, lines 1-57) Therefore, it would have been obvious to one who has ordinary skill in the art at the time the invention was made to have means to perform extracting and overwriting functions because it has to have some functions in order to perform Robinett et al.'s method.

Regarding claims 9 and 13, Robinett et al. teach determine if TS1 and TS2 have the identical PIDs and convert one of TS with different PIDs to ensure uniqueness when remultiplexing (See col 20, lines 20-51.) The PID set is according to the user specification (See col 29-30, lines 30-18, and table 1.) Robinett et al. does not specifically teach identical-PID determining means and PID-converting means. The same rationale and basis as applied to claim 7 are applied.

Regarding claim 15, Robinett et al. when Null packet area is available, the slot is used for the transmitting data; however, when burst state occurs, overwriting would find the vacant transport packet time slot to insert in order to maintain some data transmission rate to the receiver (See col 5, lines 47-49, col 40, lines 1-10, col 42, lines 45-65, col 43, lines 11-27.)

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saeki Hiroaki (Japanese Pub No. 11-122556.), in view of Robinett et al. (US Pat No. 6,351,474.)

Regarding claim 17, Saeki teach a digital broadcast receiving apparatus comprising: tuners for receiving modulated waves of digital broadcast waves; a plurality of groups of demodulator sections for demodulating signals output from said tuners to thereby output TSs; an input section for selecting a plurality of desired TSs to thereby specifying output destinations (Saeki teach tuners 21, 24, and 27 to received modulated waves and from demodulating signals to TSs, and further specified the audio or video signal as destination, such as 35 and 36. See Fig. 2 and Detail Description.) Saeki does not specifically teach extracting one necessary packet and overwrite to the

unnecessary packets area onto the different TSs. Robinnett et al. teach those as described in the claim 2 and 5. Therefore, it would have been obvious to one who has ordinary skill in the art to have overwriting function in the digital broadcast receiving apparatus because it would make sure the uniqueness of PIDs for the decoding purpose.

6. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robinett et al. (US Pat No. 6,351,474.), in view of Pearlstein (US Pat No. 5,691, 986.)

Regarding claims 20-21, Robinett et al. teach the software program and method for a digital broadcast receiving (Fig. 1), comprising the steps of: registering necessary PIDs regarding a first TS that is input; registering necessary PIDs regarding a second TS that is input (Table 1.); detecting unnecessary PIDs based on comparison between said registered necessary PIDs regarding the input first TS and necessary PIDs regarding the first TS; extracting packets corresponding to said registered necessary PIDs regarding the second TS from the input second TS (Robinett teach extracting the data according PID and user select the PID would be used. Unselected would be unnecessary as claimed. See col 30-31, lines 10-61.) Robinett does not specifically teach overwriting packets extracted from second TS, which is input, to the unnecessary packets areas in the first TS, which is also input. However, Pearlstein teach transport stream could replace the packet before the multiplexing (See col 5, lines 56-64.) The multiplexing is combined the stream into one; therefore, it would have been obvious to one who has ordinary skill in the art at the time the invention was made to overwrite the

necessary data from one stream onto unnecessary data in different stream in order to multiplex to the output stream because it would have advantage to save the bandwidth.

Allowable Subject Matter

7. Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Liou whose telephone number is 571-272-8136. The examiner can normally be reached on 8:00AM - 5:00PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jonathan Liou

2/15/2006

RICKY Q. NGO
SUPERVISORY PATENT EXAMINER